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NEWCASTLE



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Climate Change and Governance

Dr Geoff O'Brien (Former Lord Mayor of Newcastle upon Tyne)



Zhejiang University
27 October 2015

Climate Change and the Built Environment

Accelerated climate change and increasing variability is the single greatest threat to Sustainable Development and the Millennium Development Goals.

Two recent reports (IPCC “AR5” and Royal Society “Resilience to Extreme Weather”) highlight huge threat of climate change to people and built environment.

Over half of the global population live in cities – this trend will continue to rise .

Many cities are located in vulnerable areas such as coastal and estuarine locations.

There are huge uncertainties:-

Will there be a global agreement to mitigate GHGs?

Will we be able to avoid “Dangerous Climate Change”?

What conditions will we need to adapt to?

Climate Change and the Built Environment

Even if there is agreement AR5 fearful of overshoot! May require use of largely unproved Carbon Reduction Technologies (CRTs) such as Bio-Energy With Carbon Capture and Storage (BECCS)!

Broad categorises of threats:-

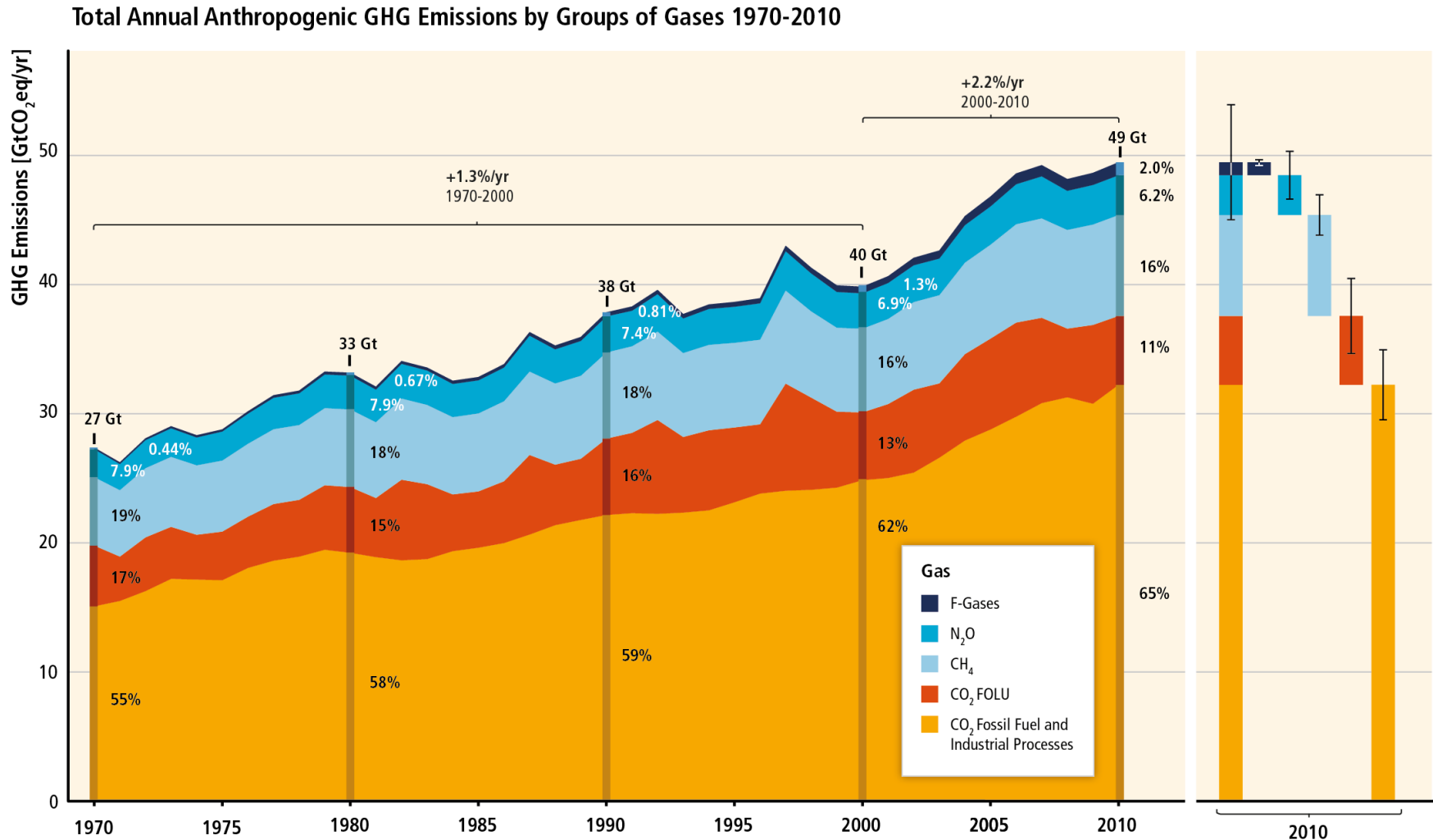
Rapid onset - storms, floods, wild fires, heat waves, epidemics

Slow onset – sea level rise, drought, loss of biodiversity

The success of any international climate agreement will depend on cities

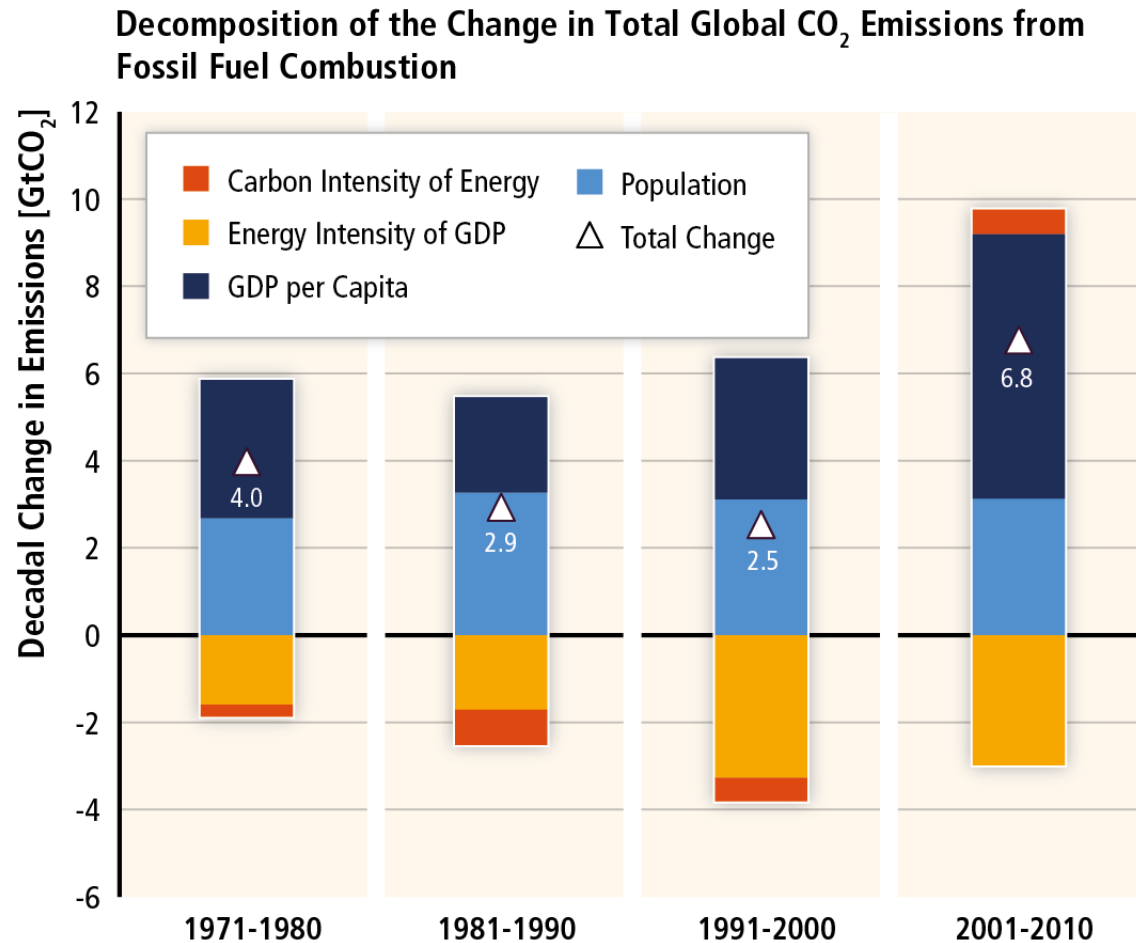
The scale of the problem is huge!

GHG emissions accelerate despite reduction efforts. Most emission growth is CO₂ from fossil fuel combustion and industrial processes.



Source: IPCC AR5 WG 3, 2014

GHG emissions rise with growth in GDP and population; long-standing trend of decarbonisation of energy reversed.



Source: IPCC AR5 WG 3, 2014

What is Climate Governance?

Governance refers to a system-wide structure that both allows and constrains the behaviour of actors in interdependent relationships in the absence of an overarching political authority

Climate governance is a system that allows actors to work together to address a common environmental concern

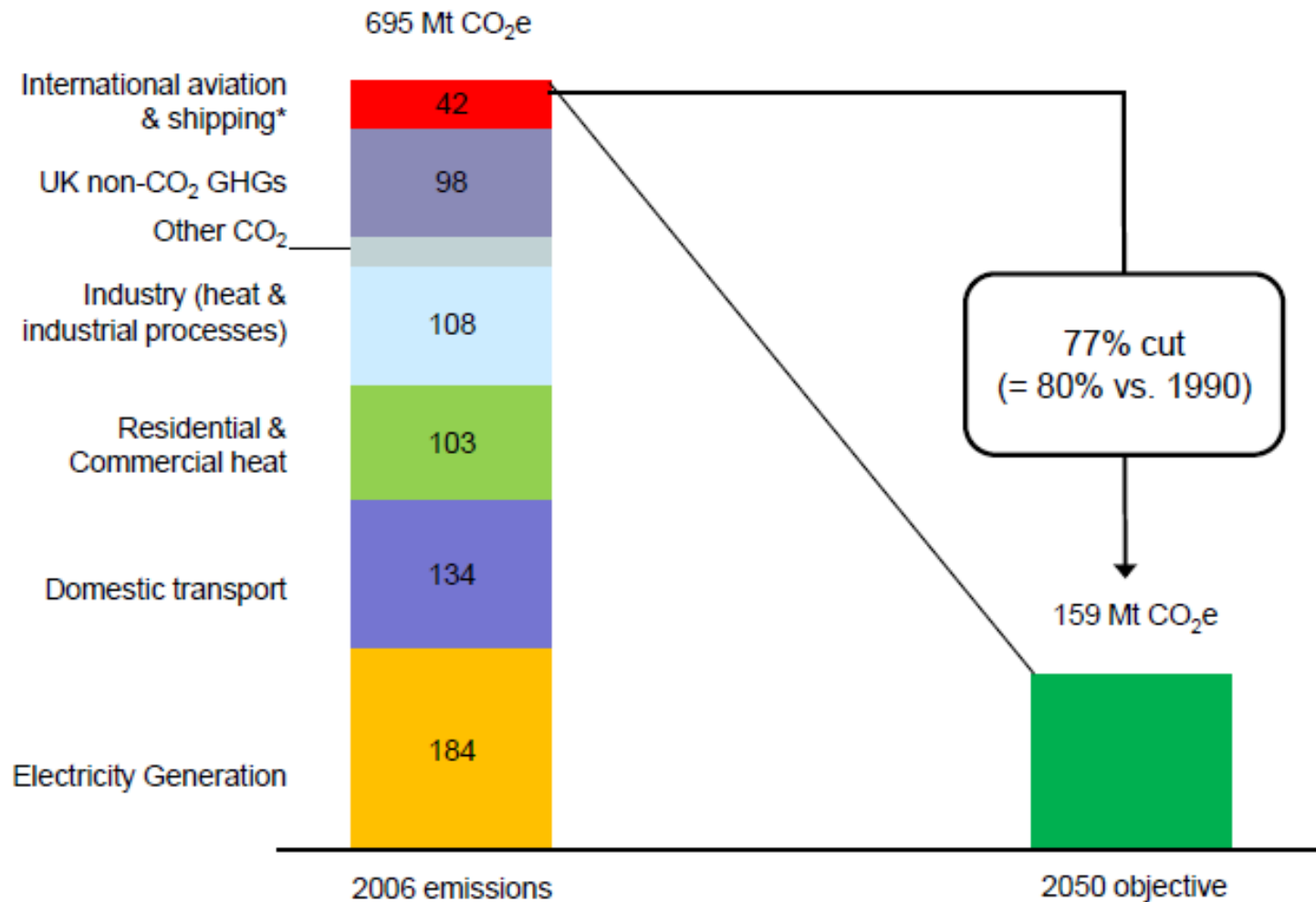
The UK is a signatory to the United Nations Framework Convention on Climate Change (UNFCCC). The UK agreed a 12.5% cut in Green House Gases (GHGs) as part of the EU Commitment to the Kyoto Protocol.

Since Kyoto a number of other targets have been established!

What is Climate Governance?

EU also has 20/20/20 targets – (decrease GHG emissions; efficiency improvements; more renewables) which apply to UK.

UK government introduced Climate Change Act (2008) which establishes a cut of 80% in GHGs by 2050!



* bunker fuels basis

UK Climate Change Governance

To achieve GHG reduction will require actions at all levels.

In an highly urbanised country such as the UK cities will play a key role.

How are cities approaching this?

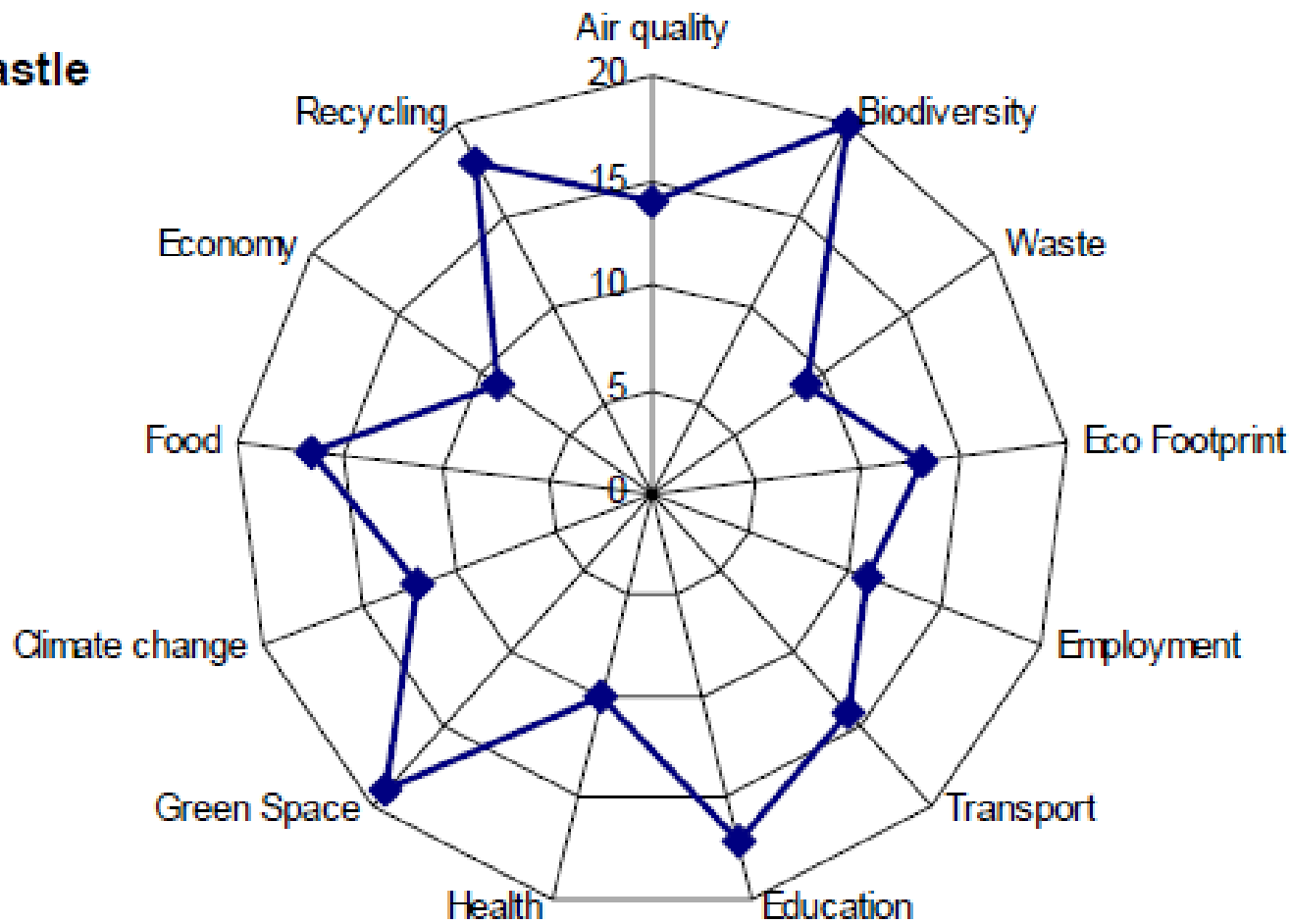
The following draws on experience from Newcastle upon Tyne.

Newcastle has a good environmental record - it has been voted as UK's most sustainable city twice – 2010 and 2012.

Also a signatory to the EU Covenant of Mayors on Sustainable Energy – 20% reduction at least by 2020

UK Climate Change Governance

Newcastle



But in terms of Climate we still have some way to go

UK Climate Change Governance

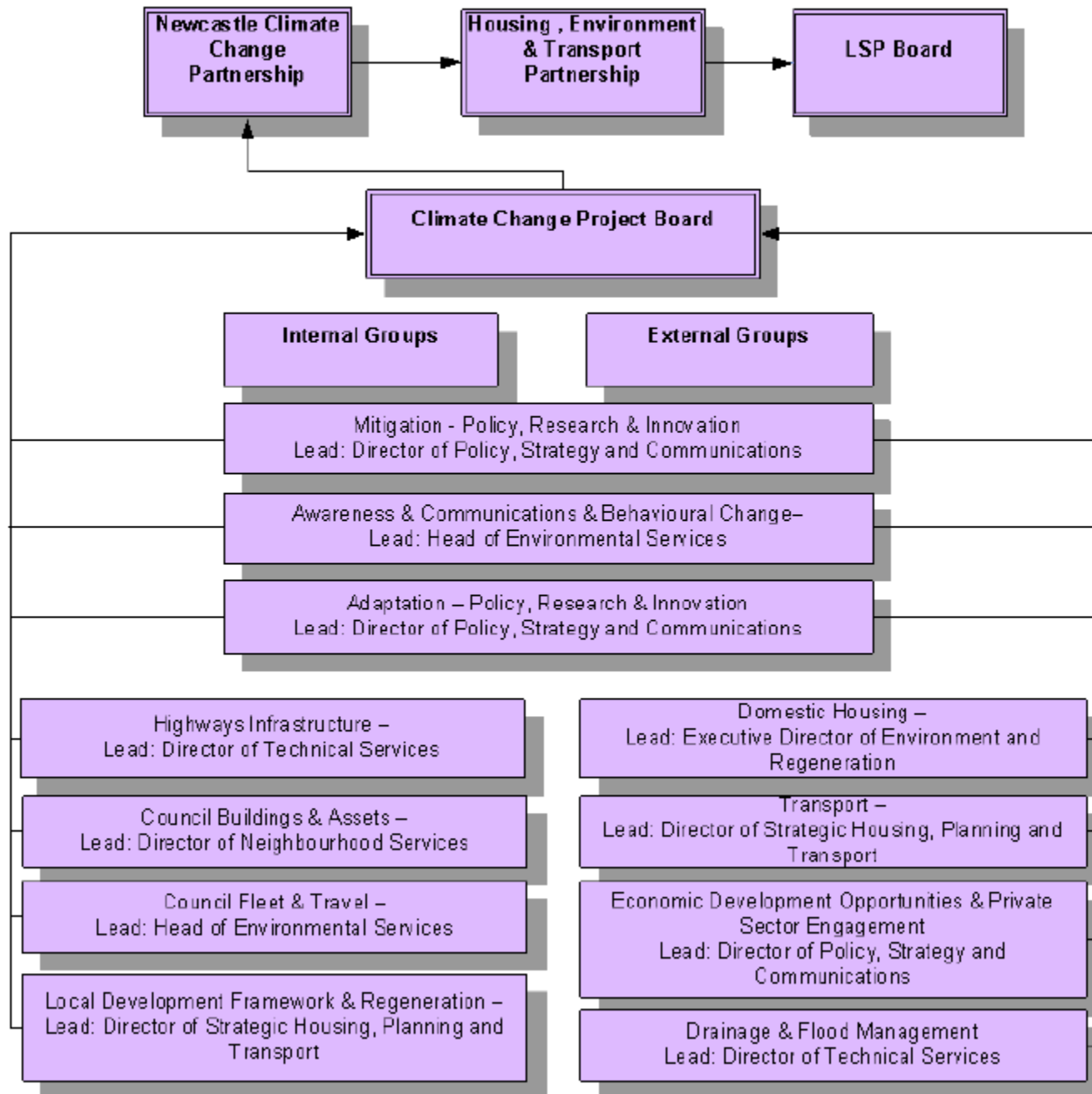
THE NEWCASTLE CLIMATE CHANGE DECLARATION

Newcastle City Council resolves to reaffirm its commitment to tackle climate change and work with residents and partners to reduce the city's carbon emissions by 34% (from 1990 levels) by 2020. We aim to provide significant employment opportunities for Newcastle's residents, reduce energy bills and boost the local economy.

The city has established a Climate Change Partnership that will deliver a number of carbon reduction projects in the next 10 years.

The Partnership has been out to consultation in the city. Its aims are widely supported!!

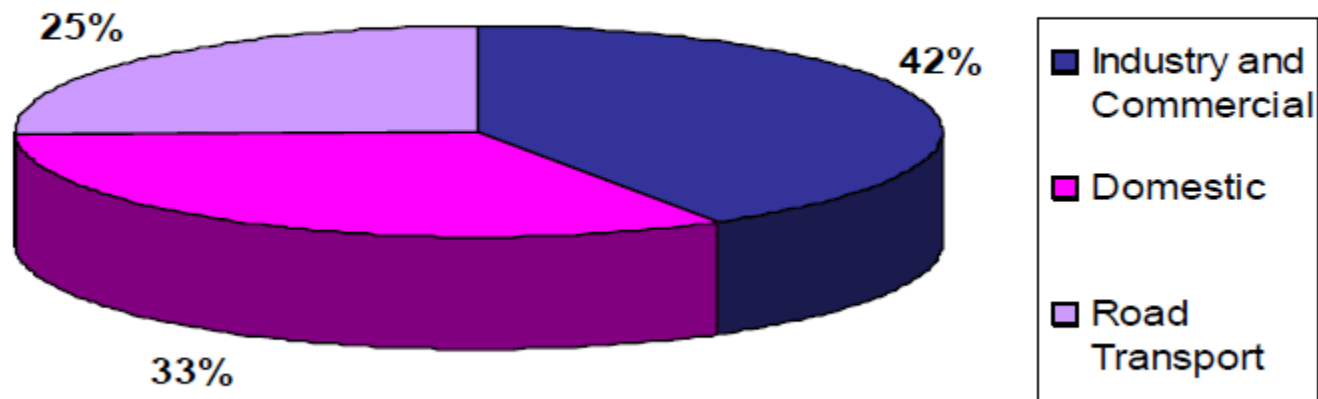
Climate Change Adaptation & Mitigation Response Programme



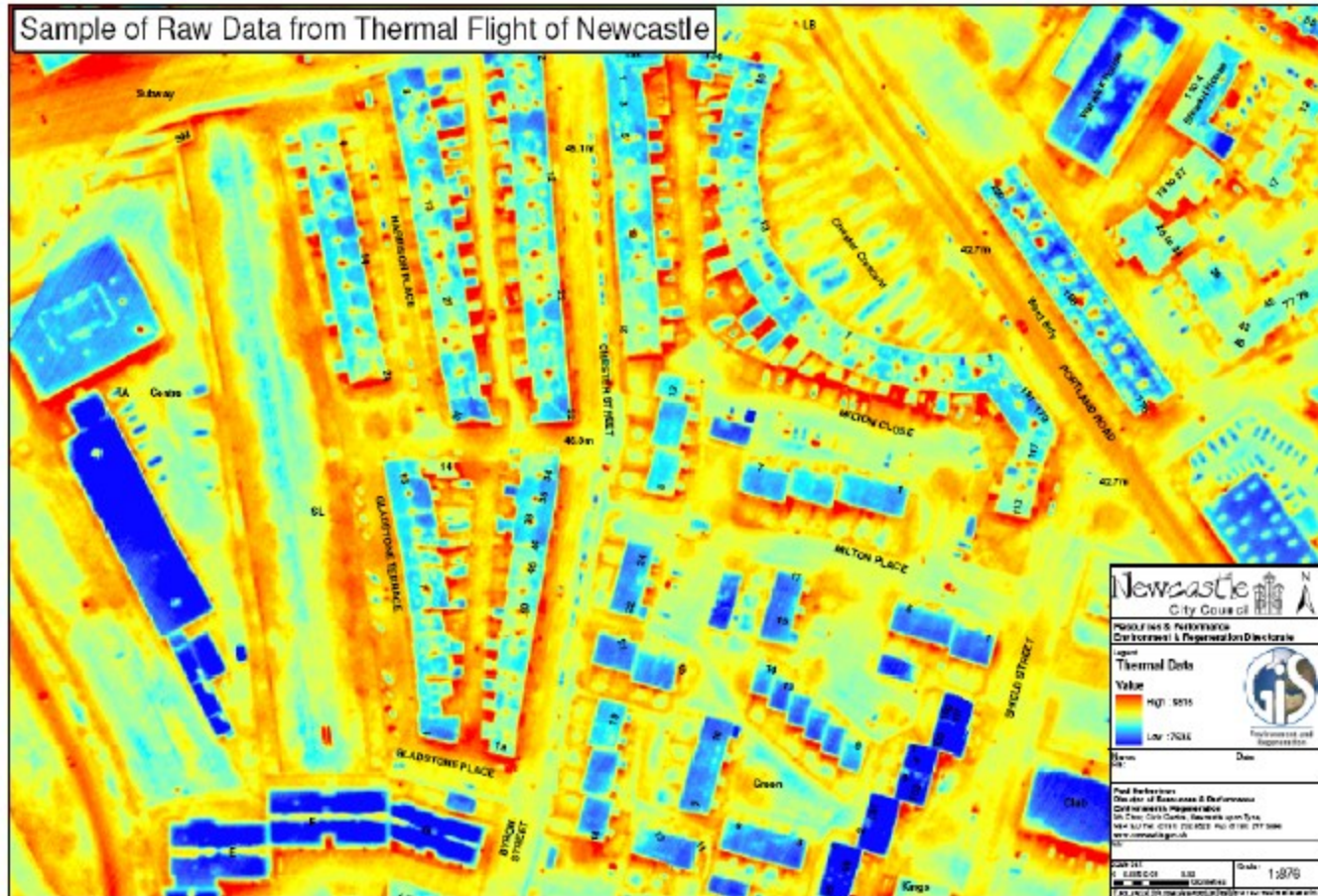
UK Climate Change Governance

The city has developed a database

Breakdown of Newcastle Carbon Footprint (2007)



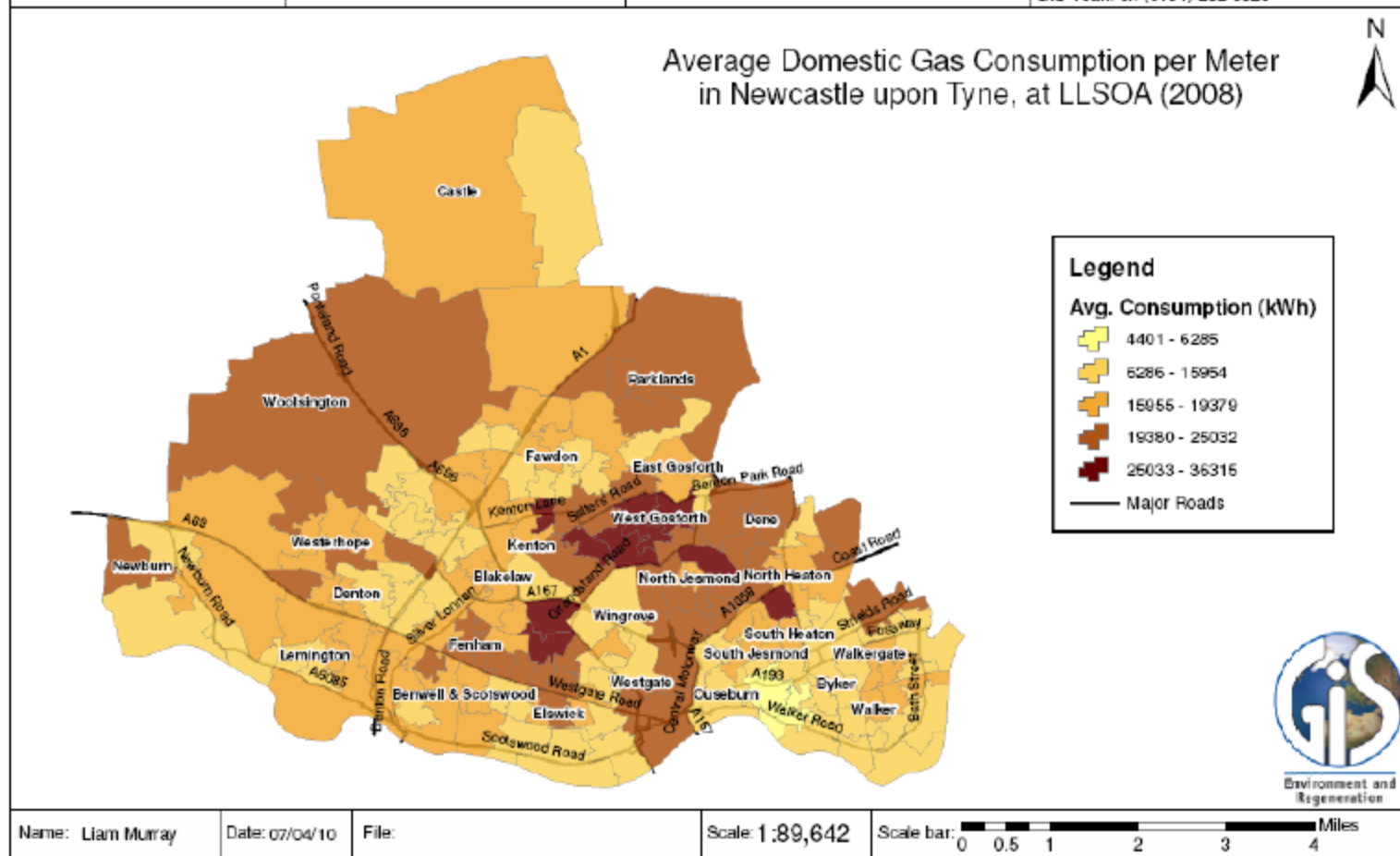
UK Climate Change Governance



UK Climate Change Governance



UK Climate Change Governance



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UK Climate Change Governance

What has this resulted in?

Installation of PV on social housing – lowers electricity costs for poor households and addresses fuel poverty.



Offers free parking and charging for users of electric vehicles.

Also supports electric car-clubs.



We actively undertake pedestrianization schemes in the city.
This encourages people and discourages vehicles.



Climate Change Governance

The city partners a number of business organisations through NE1 - this is a business improvement district scheme (BIDS).

Money raised is used to promote the city and green the city centre.

The city has a comprehensive light rail and bus system and actively works with the operators to ensure integration – the city has regular meetings with all groups that have an interest in transport.

The city is also investing in an intelligent traffic signal system – this will help to further pedestrianize parts of the city and to manage vehicles that want access to city centre car parks.



We actively work with cycling groups to promote cycling in the city and are currently developing a city-wide cycle network



Climate Change Governance

UK is very urbanised (80% of population) with some 4% of land used by cities.

Cities will be very much a part of solutions to climate change.

Climate governance in the UK is multi-level from the international to the local.